

**Notice of Allowability**

Application No.

10/628,564

Examiner

John Chavis

Applicant(s)

SCHULZ ET AL.

Art Unit

2193

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed 10/23/06.
2. ☒ The allowed claim(s) is/are 1-12, 14-21 and 23-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 17 has been amended to indicate that the apparatus includes more than a storage medium and code segments (that is, to also include the hardware or means for required to provide the functionality) and claim 28 has been amended to specify a computer readable medium comprising the workflow model to circumvent possible 101 problems.

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~~17~~. (Currently Amended) An apparatus comprising a storage medium having instructions stored thereon, the [instructions] apparatus including: means for executing a first code segment for grouping a task subset from a plurality of tasks comprising a workflow; means for executing a second code segment for expressing actual tasks within the task subset as first vertices within a first matrix, wherein values of the first vertices within the first matrix are determined by actual dependencies between the tasks within the task subset; means for executing a third code segment for constructing a virtual workflow including a first virtual task; means for executing a fourth code segment for expressing the first virtual task within the virtual workflow as second vertices within a second matrix, wherein values of the second vertices within the second matrix are

determined by virtual dependencies between the virtual tasks within the virtual workflow; and means for executing a fifth code segment for associating the task subset with the first virtual task by requiring that completion of the task subset corresponds to completion of the first virtual task.

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28. (Currently Amended) A storage medium comprising a [A] workflow model comprising: a workflow comprising a first task and a second task, the first and second tasks expressed as first vertices within a first matrix having values determined by actual dependencies between the first and second tasks; a workflow view corresponding to the workflow and comprising a first virtual task expressed as a second vertex within a second matrix having values determined by virtual dependencies between virtual tasks within the workflow view; a first dependency between a first execution of the first task and a virtual execution of the first virtual task; and a second dependency between a second execution of the second task and the virtual execution of the first virtual task.

***Allowable Subject Matter***

2. The following is an examiner's statement of reasons for allowance: the closest prior art reference of record is the reference to Aissi (cited in the previous action); however, the reference fails to teach or suggest the features of the actual tasks within the first plurality of tasks being expressed as first vertices within a first matrix having values determined by actual dependencies between the tasks within the first plurality of tasks, and virtual tasks with the abstracted/virtual workflow expressed as a second

vertices within a second matrix having values determined by virtual dependencies between the virtual tasks within the abstracted/virtual workflow.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Chavis whose telephone number is (571) 272-3720. The examiner can normally be reached on M-F, 9:00am-5:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC



John Chavis  
Primary Examiner AU-2193